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3 COUNTERMEASURE THREAT EMULATOR AND METHOD

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5 ABSTRACT OF THE DISCLOSURE

6 A system and method is disclosed for a countermeasure threat
7 emulator. The countermeasure threat emulator is provided in a
8 tubular housing that may be launched from a submarine or ship.
9 The electronics of the countermeasure threat emulator include a
10 CPU board for running software, communicating with a computer
11 external to the tubular housing, and data recording. The
12 computer external to the tubular housing preferably incorporates
13 a database that includes data representative of a plurality of
14 foreign countermeasures as well as domestic countermeasures. The
15 data may be downloaded to the CPU board as well as updated for
16 reprogramming of the CPU board. A digital signal processing
17 board preferably utilizes a plurality of DSP processors for
18 running the main software that is capable of producing a wide
19 range of acoustic signal outputs. A neural network may be used
20 for analyzing acoustic sounds from incoming threats for
21 identification thereof and for subsequent notification to the CPU
22 board for selection of a preprogrammed response. Power

- 1 amplifiers and filters are provided for converting digital
- 2 streams of digital signals to analog signals for transmission by
- 3 a transducer stack.